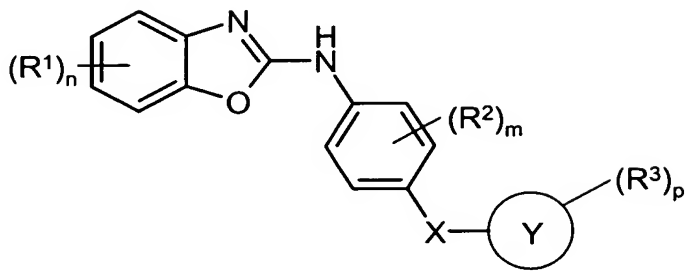
Patent Claims

1. Compounds of the formula I



I

in which

R^1, R^2, R^3 each, independently of one another, denote R, Hal, CN, NO_2, NHR, NRR, NHCOR, $NHSO_2R$, OR, CO-R, CO-NHR, CF_3, OCF_3, SCF_3, SO_3R, SO_2R, SO_2NR, SR, COOH or COOR,

R denotes H or unsubstituted or mono-, di-, tri- or tetra-R^4-substituted A, Ar, Het, $(CH_2)_qHet$ or $(CH_2)_qAr$,

A denotes unbranched, branched or cyclic alkyl having 1-14 C atoms, in which one or two CH_2 groups may be replaced by O or S atoms and/or by -CH=CH- groups and/or in addition 1-7 H atoms may be replaced by F and/or Cl,

Ar denotes phenyl, naphthyl or biphenyl, each of which is unsubstituted or mono-, di- or trisubstituted by A, Hal, OH, OA, CN, NO_2, NH_2, NHA, NA_2, NHCOA, SCF_3, SO_2A, COOH, COOA, $CONH_2$, CONHA, $CONA_2$, $NHSO_2A$, SO_2NH_2, SO_2NHA, SO_2NA_2, CHO or COA,

Het denotes a mono- or bicyclic saturated, unsaturated or aromatic heterocycle having 1 to 4 N, O and/or S atoms, which may be unsubstituted or mono-, di- or trisubstituted by carbonyl oxygen, Hal, A, $-(CH_2)_b$-Ar,

		-$(CH_2)_b$-cycloalkyl, OH, OA, NH_2, NHA, NA_2, NO_2, CN, COOH, COOA, $CONH_2$, CONHA, $CONA_2$, NHCOA, $NHCONH_2$, $NHSO_2A$, CHO, COA, SO_2NH_2 and/or $S(O)_gA$,
	Hal	denotes F, Cl, Br or I,
	R^4	denotes Hal, OH, CN, NO_2, CF_3, OCF_3, SCF_3, SO_2A or OA,
	X	denotes O, S, SO_2NH or NH,
	(Y)	denotes phenyl or a monocyclic aromatic heterocycle having 1 to 4 N, O and/or S atoms,
	b,	denotes 0, 1, 2, 3 or 4,
	g	denotes 0, 1 or 2,
	n, m, p, q	each, independently of one another, denote 1, 2, 3, or 4,

and pharmaceutically acceptable salts, derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios.

2. Compounds according to Claim 1, in which

R^1	denotes Hal, NO_2, CF_3, COOH, COOR or H,

and pharmaceutically acceptable salts, derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios.

3. Compounds according to Claim 1 or 2, in which

R^2	denotes H,

and pharmaceutically acceptable salts, derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios.

4. Compounds according to one or more of Claims 1-3, in which

R^3 denotes H, Hal or CO-NHR,

and pharmaceutically acceptable salts, derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios.

5. Compounds according to one or more of Claims 1-4, in which

Y denotes phenyl, furyl, thienyl, pyrrolyl, imidazolyl, pyridyl or pyrimidinyl,

and pharmaceutically acceptable salts, derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios.

6. Compounds according to Claim 1, in which

R^1 denotes Hal, NO_2, CF_3, COOH, COOR or H,
R^2 denotes H,
R^3 denotes H, Hal, CO-NHR,
Y denotes phenyl, furyl, thienyl, pyrrolyl, imidazolyl, pyridyl or pyrimidinyl,
X denotes O, S, SO_2NH or NH,
n, p, independently of one another, denote 1, 2, 3 or 4,
m denotes 1,

and pharmaceutically acceptable salts, derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios.

7. Compounds according to Claim 1 selected from the group
a) benzoxazol-2-yl-[4-(pyridin-4-yloxy)phenyl]amine,
b) benzoxazol-2-yl-[4-(pyridin-4-ylsulfanyl)phenyl]amine,

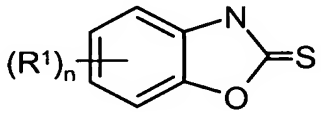
c) N-benzoxazol-2-yl-N'-pyridin-4-ylbenzene-1,4-diamine,
d) 2-[4-(pyridin-4-ylsulfanyl)phenylamino]benzoxazole-5-carboxylic acid,
e) 2-[4-(pyridin-4-yloxy)phenylamino]benzoxazole-6-carboxylic acid,
f) 2-[4-(pyridin-4-ylsulfanyl)phenylamino]benzoxazole-6-carboxylic acid,
g) methyl 2-[4-(pyridin-4-ylamino)phenylamino]benzoxazole-6-carboxylate,
h) (5-nitrobenzoxazol-2-yl)-[4-(pyridin-4-ylsulfanyl)phenyl]amine,
i) (5-nitrobenzoxazol-2-yl)-[4-(pyridin-4-yloxy)phenyl]amine,
j) N-(5-nitrobenzoxazol-2-yl)-N'-pyridin-4-ylbenzene-1,4-diamine,
k) (6-nitrobenzoxazol-2-yl)-[4-(pyridin-4-yloxy)phenyl]amine,
l) (6-nitrobenzoxazol-2-yl)-[4-(pyridin-4-ylsulfanyl)phenyl]amine,
m)N-(6-nitrobenzoxazol-2-yl)-N'-pyridin-4-ylbenzene-1,4-diamine,
n) (5-chloro-7-nitrobenzoxazol-2-yl)-[4-(pyridin-4-yloxy)phenyl]amine,
o) (5-chloro-7-nitrobenzoxazol-2-yl)-[4-(pyridin-4-ylsulfanyl)phenyl]-amine,
p) N-(5-chloro-7-nitrobenzoxazol-2-yl)-N'-pyridin-4-ylbenzene-1,4-diamine,
q) (7-bromo-5-trifluoromethylbenzoxazol-2-yl)-[4-(pyridin-4-yloxy)-phenyl]amine,
r) (7-bromo-5-trifluoromethylbenzoxazol-2-yl)-[4-(pyridin-4-ylsulfanyl)-phenyl]amine,
s) (7-bromo-5-trifluoromethylbenzoxazol-2-yl)-[4-(4-fluorophenylsulfanyl)phenyl]amine,
t) N-[4-(bromotrifluoromethylbenzoxazol-2-ylamino)phenyl]-4-fluorobenzenesulfonamide,
u) [4-(2-amino-6-methylpyrimidin-4-yloxy)phenyl]-(7-bromo-5-trifluoromethylbenzoxazol-2-yl)amine,
v) N-methyl-4-[4-(bromotrifluoromethylbenzoxazol-2-ylamino)-phenoxy]pyridine-2-carboxamide,

w) N-methyl-4-[4-(bromotrifluoromethylbenzoxazol-2-ylamino)phenylsulfanyl]pyridine-2-carboxamide,

x) (7-bromo-5-trifluoromethylbenzoxazol-2-yl)-[4-(2,4-difluorophenylsulfanyl)phenyl]amine,

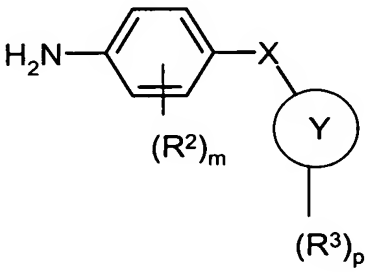
and pharmaceutically acceptable salts, derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios.

8. Process for the preparation of compounds of the formula I and physiologically acceptable salts, derivatives, solvates and stereoisomers thereof, characterised in that
a compound of the formula II



II

in which R^1 and n have the meanings indicated in Claim 1,
is reacted with a compound of the formula III



III

in which R^2, R^3, X, Y, m and p have the meanings indicated in Claim 1,
and/or a base or acid of the formula I is converted into one of its salts.

9. Medicaments comprising at least one compound according to one or more of Claims 1-7 and/or physiologically acceptable salts, derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios, and optionally excipients and/or adjuvants.

10. Medicaments comprising at least one compound according to one or more of Claims 1-7 and/or physiologically acceptable salts, derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios, and at least one further medicament active ingredient.

11. Set (kit) consisting of separate packs of
a) an effective amount of a compound according to one or more of Claims 1-7 and/or physiologically acceptable derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios, and
b) an effective amount of a further medicament active ingredient.

12. Compounds according to one or more of Claims 1-7 and physiologically acceptable salts, derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios, as activators or inhibitors of kinases.

13. Compounds according to one or more of Claims 1-7 and physiologically acceptable salts, derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios, as inhibitors of tyrosine kinases and/or of Raf kinases.

14. Use of compounds according to one or more of Claims 1-7 and/or physiologically acceptable salts, derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios, for the preparation of a medicament for the treatment and/or prophylaxis of diseases.

15. Use of compounds according to one or more of Claims 1-7 and/or physiologically acceptable salts, derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios, for the preparation of a medicament for the treatment and/or prophylaxis of diseases that are caused, mediated and/or propagated by kinases and/or by kinase-mediated signal transduction.

16. Use according to Claim 15, where the kinases are selected from the group of the tyrosine kinases.

17. Use according to Claim 16, where the tyrosine kinases are TIE-2 or VEGFR.

18. Use according to Claim 15, where the kinases are selected from the group of the Raf kinases.

19. Use according to Claim 18, where the Raf kinases are A-Raf, B-Raf or Raf-1.

20. Use of compounds according to one or more of Claims 1-7 and/or physiologically acceptable salts, derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios, for the preparation of a medicament for the treatment and/or prophylaxis of solid tumours.

21. Use according to Claim 20, where the solid tumour is selected from the group consisting of brain tumour, tumour of the urogenital tract, tumour of the lymphatic system, stomach tumour, laryngeal tumour and lung tumour.

22. Use according to Claim 20, where the solid tumour is selected from the group consisting of monocytic leukaemia, lung adenocarcinoma, small cell lung carcinomas, pancreatic cancer, glioblastomas and breast carcinoma.

23. Use of compounds according to one or more of Claims 1-7 and/or physiologically acceptable salts, derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios, for the preparation of a medicament for the treatment and/or prophylaxis of diseases that are caused, mediated and/or propagated by angiogenesis.

24. Use of compounds according to one or more of Claims 1-7 and/or physiologically acceptable salts, derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios, for the preparation of a medicament for the treatment and/or prophylaxis of diseases selected from the group consisting of retinal vascularisation, diabetic retinopathy, age-induced macular degeneration and/or inflammatory diseases.

25. Use of compounds according to one or more of Claims 1-7 and/or physiologically acceptable salts, derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios, for the preparation of a medicament for the treatment and/or prophylaxis of bone pathologies selected from the group consisting of osteosarcoma, osteoarthritis and rickets.

26. Use of compounds according to one or more of Claims 1-7 and/or physiologically acceptable salts, derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios, for the preparation of a medicament for the treatment and/or prophylaxis of diseases selected from the group consisting of psoriasis, rheumatoid arthritis, contact dermatitis, delayed hypersensitivity reaction, inflam-

mation, endometriosis, scarring, benign prostatic hyperplasia, immunological diseases, autoimmune diseases and immunodeficiency diseases.

27. Use of compounds according to one or more of Claims 1-7 and/or physiologically acceptable salts, derivatives, solvates and stereoisomers thereof, including mixtures thereof in all ratios, for the preparation of a medicament for the treatment and/or prophylaxis of diseases selected from the group consisting of brain cancer, lung cancer, squamous cell cancer, bladder cancer, gastric cancer, pancreatic cancer, hepatic cancer, renal cancer, colorectal cancer, breast cancer, head cancer, neck cancer, oesophageal cancer, gynaecological cancer, thyroid cancer, lymphoma, chronic leukaemia and acute leukaemia.

28. Use of compounds according to one or more of Claims 1-7 and/or physiologically acceptable salts and solvates thereof for the preparation of a medicament for the treatment and/or prophylaxis of diseases, where a therapeutically effective amount of a compound according to one or more of Claims 1-7 is administered in combination with a compound from the group 1) oestrogen receptor modulator, 2) androgen receptor modulator, 3) retinoid receptor modulator, 4) cytotoxic agent, 5) antiproliferative agent, 6) prenyl-protein transferase inhibitors, 7) HMG-CoA reductase inhibitors, 8) HIV protease inhibitors 9) reverse transcriptase inhibitors, 10) growth factor receptor inhibitors and 11) angiogenesis inhibitors.

29. Use of compounds according to one or more of Claims 1-7 and/or physiologically acceptable salts and solvates thereof for the preparation of a medicament for the treatment and/or prophylaxis of diseases, where a therapeutically effective amount of a compound according to one or more of Claims 1-7 is administered in combina-

tion with radiotherapy and a compound from the group 1) oestrogen receptor modulator, 2) androgen receptor modulator, 3) retinoid receptor modulator, 4) cytotoxic agent, 5) antiproliferative agent, 6) prenyl-protein transferase inhibitors, 7) HMG-CoA reductase inhibitors, 8) HIV protease inhibitors, 9) reverse transcriptase inhibitors, 10) growth factor receptor inhibitors and 11) angiogenesis inhibitors.